

### **ABSTRACT**

A thermal overload relay comprises an actuating mechanism for generating power when an abnormal state is occurred between a power source and an electrical load, and a switching mechanism for switching contacts on state or off state according to the power transferred from the actuating mechanism. The actuating mechanism includes a plurality of main bimetals arranged in parallel to the bottom surface of the case for being bended when the abnormal state is occurred; a plurality of heating member connected to the power source, each heating member is wound around the corresponding main bimetal for transferring heat occurred due to the abnormal state to the main bimetal; a shifter positioned to be contacted one ends of the main bimetals in parallel to the bottom surface of the case for being horizontally movable by the bending force of the main bimetals; and a lever connected to the shifter for transferring the movement force from the shifter to the switching mechanism.